

IN THE CLAIMS:

Claims 1-23 (canceled).

Claim 24 (new) A process for the production of hydrocarbons and ammonia, the process including the steps of:

- by means of air separation means, separating air into oxygen and nitrogen;
- in a reforming section, reacting natural gas, steam and oxygen from the air separation facility, to form synthesis gas;
- in a hydrogen extraction unit, extracting hydrogen from at least a portion of the synthesis gas;
- thereafter feeding the synthesis gas into a Fischer-Tropsch reactor in which hydrocarbons are produced from the synthesis gas, with the reforming section, the hydrogen extraction unit and the Fischer-Tropsch reactor forming part of a hydrocarbon synthesis process; and
- feeding at least a portion of the extracted hydrogen into an ammonia synthesis process together with the nitrogen from the air separation means, with the air separation means thus being a combined air separation means for both the hydrocarbon synthesis process and the ammonia synthesis process, and with the reforming section thus being a combined reforming section for both the hydrocarbon synthesis process and the ammonia synthesis process so that separate reforming sections for the hydrocarbon synthesis process and the ammonia synthesis process are not required.

Claim 25 (new) A process as claimed in claim 24, wherein the hydrogen is extracted until a H_2/CO ratio of synthesis gas fed to the Fischer-Tropsch reactor is lower than or equal to 2.5.

Claim 26 (new) A process as claimed in claim 24, wherein the H_2/CO ratio is lower than or equal to 2.

Claim 27 (new) A process as claimed in any one of claim 24, wherein only a portion of the synthesis gas is sent to the hydrogen extraction unit and is divided into a hydrogen-rich stream, at least a portion of which is fed into the ammonia synthesis process, and a hydrogen-poor stream.

Claim 28 (new) A process as claimed in claim 27, wherein the hydrogen-poor stream is returned to the hydrocarbon synthesis process.

Claim 29 (new) A process as claimed in 27, wherein the hydrogen-poor stream is used as fuel gas.

Claim 30 (new) A process as claimed in claim 27, wherein CO and/or CO_2 are removed from the hydrogen-poor stream.

Claim 31 (new) A process as claimed in claim 24, wherein at least a portion of CO_2 is removed from the synthesis gas stream prior to the synthesis gas stream entering the

Fischer-Tropsch reactor.

Claim 32 (new) A process as claimed in claim 24, wherein a portion of a Fischer-Tropsch tail gas is returned to the reforming section of the hydrocarbon synthesis process.

Claim 33 (new) A hydrocarbon produced according to the process described in claim 24.

Claim 34 (new) A diesel product produced according to the process described in claim 24.

Claim 35 (new) A naptha product produced according to the process described in claim 24.

Claim 36 (new) Ammonia produced according to the process described in claim 24.

Claim 37 (new) A combined hydrogen synthesis plant and ammonia synthesis plant, which includes

air separation means for separating air into oxygen and nitrogen;

a reforming section connected to the air separation means and in which natural gas, steam and oxygen from the air separation facility can be reacted to form synthesis gas;

means, connected to the reforming section, for extracting hydrogen from at least a portion of the synthesis gas;

a Fischer-Tropsch reactor connected to the hydrogen extraction means and in which hydrocarbons can be produced from synthesis gas from which hydrogen has been removed, with the reforming section, the means for extracting hydrogen and the Fischer-Tropsch reactor forming part of a hydrocarbon synthesis plant;

an ammonia synthesis plant connected to the air separation means so that nitrogen from the air separation means can be fed to the ammonia synthesis plant; and

means, connected to the hydrogen extraction means, for feeding at least a portion of the hydrogen extracted from the synthesis gas into the ammonia synthesis plant with the air separation means thus being a combined air separation means for both the hydrocarbon synthesis plant and the ammonia synthesis plant, and with the reforming section thus being a combined reforming section for both the hydrocarbon synthesis plant and the ammonia synthesis plant so that separate reforming sections for the hydrocarbon synthesis plant and the ammonia synthesis plant are not required.

Claim 38 (new) A combined hydrocarbon synthesis plant and ammonia synthesis plant as claimed in claim 37, which includes means, connected to the hydrocarbon synthesis plant and to the reforming section, for returning at least a portion of the hydrocarbon synthesis tail gas to the reforming section.

Claim 39 (new) A combined hydrocarbon synthesis plant and ammonia synthesis plant as claimed in claim 37, which includes means, connected to the hydrogen

extraction means and to a hydroprocessing section of the hydrocarbon synthesis plant, for feeding at least a portion of the extracted hydrogen into the hydroprocessing section of the hydrocarbon synthesis plant.

Claim 40 (new) A combined hydrocarbon synthesis plant and ammonia synthesis plant as claimed in Claim 37, wherein the means for extracting hydrogen separates a portion of the synthesis gas into a hydrogen-rich stream and a hydrogen-poor stream, with at least a portion of the hydrogen-rich stream being fed into the ammonia synthesis plant.

Claim 41 (new) A combined hydrocarbon synthesis plant and ammonia synthesis plant as claimed in claim 37, which includes means, connected to the hydrogen extraction means and to the hydrocarbon synthesis plant, for returning the hydrogen-poor stream to the hydrocarbon synthesis plant.